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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/621,102

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Stephen S. Ing

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EXAMINER

VO, TUNG T

ART UNIT

PAPER NUMBER

2621

MAIL DATE

DELIVERY MODE

08/03/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/621,102

Applicant(s)

ING ET AL.

Examiner

Tung Vo

Art Unit

2621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 December 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 4-6, 13-15, 22-24 and 28-32 is/are pending in the application.
- 4a) Of the above claim(s) 1-3, 7-12, 16-21 and 25-27 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 4-6, 13-15, 22-24 and 28-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 4-5, 13-14, 22-23, and 28-32 are rejected under 35 U.S.C. 102(b) as being anticipated by Murakami et al. (US 5,010,401).

Re claims 4, 13, and 22, Murakami discloses a method for controlling a video image compression system (fig. 21) comprising:

a bit rate controller (9 of fig. 21) compressing a video frame of raw video image data using a processor (71 of fig. 21);

storing compressed video image data for said video frame in a buffer (8 of fig. 21),

said stored compressed video image data to be transmitted over a transmission medium (81 of fig. 21, Note transmission buffer 8 inherently has a transmission medium);

a video controller (2 of fig. 21) coupled to said bit rate controller (9 of fig. 21) for determining (9 of fig. 21) whether the processor is limited in its ability to compress video image data based on whether a difference (6 of fig. 21) between a compress time (2 of fig. 21) for a current frame and a target frame period exceeds a threshold amount (208 and 209 of fig. 21) to be stored in said buffer;

Art Unit: 2621

wherein the bit rate controller (9 of fig. 21) for adjusting a target frame rate based on a current amount of the compress time (2 of fig. 21, Note the required encoding time) taken to compress said video frame of raw video image data by said processor.

Re claims 5,14, 23, Murakami wherein said target frame rate is adjusted (9 of fig. 21) to a value equal to a frame rate of a video capture device divided by an integer divisor (16x8 samples or 4x4 samples).

Re claims 28-30, Murakami further discloses wherein the threshold amount corresponds to a predetermined portion of the target frame period (col. 16, lines 4-18).

Re claim 31, Murakami further discloses a compressor (fig. 21) including said bit rate controller (9 of fig. 21), said compressor further comprising; a first queue to store the raw video image data (1 of fig. 21, Note holding the raw video data for encoding); a codec (71 of fig. 21) coupled to the first queue to compress the raw video image data; and a second queue (8 of fig. 21) coupled to the codec to store the compressed video image data.

Re claim 32, Murakami further discloses wherein the processor is to control a compression rate of the codec (9 of fig. 21).

3. Claims 4-6, 13-15, 22-24, and 28-32 are rejected under 35 U.S.C. 102(e) as being anticipated by Chujoh (US 6,188,792).

Re claims 4, 13, 22, Chujoh discloses the same method, system and computer executed program for video image compression, comprising:

Art Unit: 2621

compressing a video frame of a raw video image data using a processor (117 of fig. 1, Note encoding section (encoder) is considered as a processor for compressing the input video signal; col. 6, line 21+);

storing compressed video image data for said video frame in a buffer (115 of fig. 1, Note output buffer is storing an encoded video data), said stored compressed video image data to be transmitted over a transmission medium (Note smoothed at a fixed output rate (encoding bit rate) by the output buffer (115 of fig. 1), and transmitted as encoded data, and transmission medium, 40 and 41 of fig. 8);

determining whether the processor is limited in its ability to compress video image data (one cycle, one cycle +1, one cycle +2, one cycle + L +1, col. 14, lines 15-19) based on whether a difference between compress time (col. 14, lines 9-26) for a current frame and a target frame period exceeds to a threshold amount (an error exists in one or two or three frames, col. 14, lines 15-19; see also fig. 11 and 12); and

adjusting a target frame rate based on the compress time (col. 14, lines 29-57; one cycle or two cycle or one cycle +L-1).

Re claims 5, 14 and 23 read on Chujoh at col. 7, lines 23-35.

Re claims 6, 15 and 24 read on Chujoh at col. 1, lines 53-65, col.7, lines 23-35. In effect, a division by a natural number in Chujoh (col. 7, line 28) reads on an integer divisor between 1 and 30.

Re claims 28-30, Chujoh further discloses wherein the threshold amount corresponds to a predetermined portion of the target frame period (col. 14, lines 15-19, Note one frame, two frames and three frames).

Art Unit: 2621

Re claim 31, Chujoh further discloses a compressor (fig. 1) including said bit rate controller (116 of fig. 1, Note ENCODING BIT RATE), said compressor further comprising; a first queue to store the raw video image data (INPUT VIDEO SIGNAL of figure 1 inherently stored in a memory, see 21 of fig. 10, Note the picture signal input section is holding the raw video); a codec (113 of fig. 1) coupled to the first queue to compress the raw video image data; and a second queue (115 of fig. 1) coupled to the codec to store the compressed video image data.

Re claim 32, Murakami further discloses wherein the processor is to control a compression rate of the codec (ENCODING FRAME RATE of fig. 1).

Response to Arguments

4. Applicant's arguments filed 12/21/2206 have been fully considered but they are not persuasive.

The applicant argues that Chujoh nowhere teaches determining whether a processor is limited in its ability to compress video data based on whether a difference between a compress time for a current frame and a target frame period exceeds a threshold amount.

The examiner respectfully disagrees with the applicant. It is submitted that Chujoh teaches determining whether a processor is limited in its ability to compress video data based on whether a difference between a compress time for a current frame and a target frame period exceeds a threshold amount (col. 14, lines 9-30). In view of the discussion above, Chujoh clearly anticipates the claimed invention.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

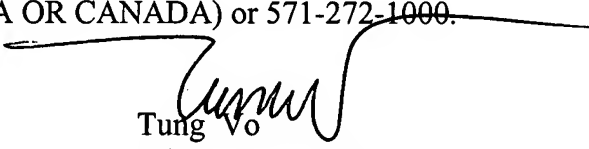
Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tung Vo whose telephone number is 571-272-7340. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mehrdad Dastouri can be reached on 571-272-7418. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2621

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Tung Vo
Primary Examiner
Art Unit 2621